

REMARKS

In this Amendment, claims 1, 9, 10, 12, and 23-28 have been amended, claim 29 has been cancelled, and claims 30-53 have been added. No new matter has been added by this Amendment. After entry of this Amendment, claims 1-14, 21-28, and 30-53 will be pending in the application.

In the Office Action, the Examiner:

- (a) objected to claims 24-29 as being informal;
- (b) rejected claims 1, 2, 4-7, and 21 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,484,442 to Melker et al. ("Melker");
- (c) rejected claims 1, 2, 4-8, 21, and 22 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,048,343 to Mathis et al. ("Mathis");
- (d) rejected claims 23, 24, 26, and 27 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,214,012 to Karpman et al. ("Karpman");
- (e) rejected claim 3 under 35 U.S.C. §103(a) as being unpatentable over Melker in view of U.S. Patent No. 4,537,185 to Stednitz ("Stednitz");
- (f) rejected claims 9, 10, 13, and 14 under 35 U.S.C. §103(a) as being unpatentable over Mathis in view of U.S. Patent No. 6,159,179 to Simonson ("Simonson");
- (g) rejected claims 11 and 12 under 35 U.S.C. §103(a) as being unpatentable over Mathis and Simonson in view of U.S. Patent No. 4,903,691 to Heini ("Heini");
- (h) rejected claim 25 under 35 U.S.C. §103(a) as being unpatentable over Karpman in view of U.S. Patent No. 6,599,293 to Tague et al. ("Tague"); and
- (i) objected to claims 28 and 29 as being dependent upon a rejected base claim, but stated they would be allowable if rewritten in independent form.

Applicants amend claims 1, 9, 10, 12, and 23-28 to better define the claimed invention and to correct minor typographical errors. Applicants also add new claims 30-53 to better define the claimed invention. No new matter has been added. Applicants

respectfully submit that currently pending claims 1-14, 21-28, and 30-53 overcome the Examiner's rejections.

Objections to Claims 24-29

With regards to the objection under (a), above, Applicants amend claims 24-29 to make them dependent from claim 23 rather than claim 22, as suggested by the Examiner. As such, Applicants respectfully request that this objection be withdrawn.

Rejections to Claims 1-8, 21, 22, and New Claims 30 and 40-46

With regards to the rejections of claims 1-8, 21, and 22, Applicants respectfully submit that not one of the cited references discloses a *bone tap* for introducing bone filler into a bone and for forming a threaded hole in the bone, as recited in independent claim 1. In particular, Applicants respectfully submit that the disclosed bone screws of Mathis and Karpman cannot be construed as the bone tap recited in the claims. Furthermore, the intraosseous needle disclosed in Melker cannot be construed as the bone tap recited in the claims.

In this Amendment, Applicants rely on the preamble to distinguish the claimed invention from the prior art, including Mathis, Karpman, and Melker. Namely, Applicants respectfully submit that claim 1—and its dependent claims—are limited to bone taps.

See MPEP 2111.02, II, ¶3, *Catalina Mktg. Int'l v. Coolsavings.com, Inc.*, 289 F.3d at 808-809 (holding “clear reliance on the preamble during prosecution to distinguish the claimed invention from the prior art transforms the preamble into a claim limitation because such reliance indicates use of the preamble to define, in part, the claimed invention”), and *Metabolite Labs., Inc. v. Corp. of Am. Holdings*, 370 F.3d 1354, 1358-1362 (Fed. Cir. 2004) (holding that “preamble may provide context for claim construction, particularly, where . . . that preamble’s statement of intended use forms the basis for distinguishing the prior art in the patent’s prosecution history.”)

Claim 1 recites a bone tap. A bone tap, as is well known by those skilled in the art, forms a threaded hole in a bone, which may later be used for receiving a bone screw. In the Applicants' Description of Related Art, Applicants note that U.S. Patent No.

6,565,572 to Chappius discloses a fenestrated surgical screw. Applicants also point out the deficiency in this design. In particular, Applicants point out that a fenestrated bone screw that has been cured in place may be difficult to remove should a subsequent procedure be necessary due to infection, further injury, and/or other causes.

Additionally, Applicants add new claims 30 and 40-46—which depend from claim 1—to better define the claimed invention. No new matter has been added. Applicants respectfully submit that these claims are novel and non-obvious for at least the same reasons that independent claim 1 is allowable.

Because none of the cited references discloses a *bone tap* for introducing bone filler into a bone and for forming a threaded hole in the bone, as recited in claims 1-8, 21, 22, 30, and 40-46, Applicants respectfully request that the rejections to these claims be withdrawn.

Rejections to Claims 9-14

With regards to the rejections of claims 9-14, Applicants respectfully submit that the cited art does not disclose a surgical system comprising a *tap and a bone fastener*, wherein the bone fastener is configured to be inserted into a threaded opening created by the tap, as recited in claims 9-14.

As discussed above, Applicants respectfully submit that the bone screws disclosed in Karpman and Mathis cannot be construed as the tap recited in the claims. Additionally, Applicants respectfully submit that the intraosseous needle disclosed in Melker cannot be construed as the recited tap, either.

Because none of the cited references discloses a surgical system comprising a *tap and a bone fastener*, wherein the bone fastener is configured to be inserted into a threaded opening created by the tap, as recited in claims 9-14, Applicants respectfully request that the rejections to these claims be withdrawn.

Claims 23-28 and New Claims 31-39

In the Office Action, the Examiner objected to claims 28 and 29 as being dependent upon a rejected base claim, but stated that these claims would be allowable if rewritten in independent form including all of the limitations of the base claim.

In this Amendment, Applicants amend independent claim 23 to include the recitations of claim 29, and cancel claim 29. Accordingly, Applicants respectfully request the allowance of claim 23 and its dependent claims—claims 24-28, 31, and 32.

Also in this Amendment, Applicants add new claims 33-39. Independent claim 33 is previously-presented dependent claim 28—with some clarifying amendments—rewritten in independent form. As such, Applicants respectfully request allowance of claim 33 and its dependent claims—claims 34-39.

New Claims 47-53

In this Amendment, Applicants add new method claims 47-53. Applicants respectfully submit that these claims are allowable for at least the same reasons discussed above. Namely, Applicants respectfully submit that none of the cited art—including Mathis, Karpman, and Melker—discloses a *bone tap* for introducing a fluid into the bone, as recited in these claims.

Additionally, the prior art does not disclose a bone tap that introduces fluid to a *first and second* bone location, as recited in the claims.

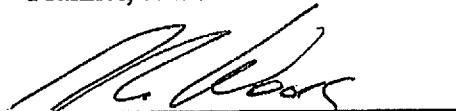
For at least these reasons, Applicants respectfully request allowance the claim 47 and its dependent claims—claims 48-53.

Summary

Applicants respectfully submit that the application is in condition for allowance.

The Examiner is invited to contact the undersigned at the phone number indicated below with any questions or comments, or to otherwise facilitate expeditious prosecution of the application.

Respectfully submitted,
Frankel, *et al.*



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